

NASA/GODDARD SPACE FLIGHT CENTER

## REQUEST FOR TASK PLAN / TASK ORDER

| CONTRACTOR      | CONTRACT NO./TASK NO.                              | JOB ORDER NUMBER | APPROP. FY |
|-----------------|--|------------------|------------|
| QSS Group, Inc. | NAS5-<br>99124      TASK NO.<br>177      AMENDMENT | 423-428-12-85-89 | 2000       |

|                    |   |
|--------------------|---|
| <b>TASK TITLE:</b> | (NTE 80 characters; include Project name) |
|--------------------|---|


## EOS Mission Systems Implementation Engineering Analysis

APPROVALS: (Type or print name and sign)

**ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)**

|            |   |         |             |             |              |
|------------|---|---------|-------------|-------------|--------------|
| Alan Johns |  | 12/4/99 | CODE<br>423 | CODE<br>423 | 301-614-5401 |
|------------|---|---------|-------------|-------------|--------------|

|               |         |      |              |
|---------------|---------|------|--------------|
| BRANCH HEAD   | DATE    | CODE | PHONE        |
| Steve Metcalf | 12/6/99 | 423  | 301-614-5311 |

|  |          |      |              |
|--|----------|------|--------------|
| CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)  | DATE     | CODE | PHONE        |
| Robert S. Lebaire, Jr.  | 12/17/99 | 560  | 301-286-6588 |

|  |   |                 |
|--|---|-----------------|
| FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE?<br>(If YES, NEED CODE 303 CONCURRENCE NEXT BLOCK) | CONTRACTING OFFICER'S QUALITY REP.<br><br>Larry Moore | DESIGNATED FAM: |
| <input checked="" type="checkbox"/> No <input type="checkbox"/> YES                          |   |                 |

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.

(To be completed by Contracting Officer)

**C.O. Requested Quote on:**

**Date:** DEC - 9 1999

Contractor will develop specification or statement of work under this task for a future procurement. ☒ NO ☐ YES

Flight hardware will be shipped to GSFC for testing prior to final delivery. ☐ NO ☐ YES ☒ N/A

Government Furnished Property/Facilities: ☐ NO ☒ YES -- SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)

|   |                             |   |         |                                |   |
|---|-----------------------------|---|---------|--------------------------------|---|
| Onsite Performance:                                     | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> YES | If yes: | <input type="checkbox"/> TOTAL | <input checked="" type="checkbox"/> PARTIAL |
| If partial, indicate onsite work in SOW by asterisk (*) |                             |   |         |                                |   |

Surveillance Plan Attached: ☒ NO ☐ YES

Highlighted Contract Clauses: *(to be completed by Contracting Officer)*

Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be January 1, 2000.

**INCENTIVE FEE STRUCTURE** (check one)

(See Contract NAS5-99124, Attachment K, Incentive Fee Plan)

|           | No. 1 | No. 2 | x No. 3 | No. 4 | No. 5 |
|-----------|-------|-------|---------|-------|-------|
| Cost      | 10%   | 50%   | 25%     | 25%   | %     |
| Schedule  | 15%   | 25%   | 25%     | 50%   | %     |
| Technical | 75%   | 25%   | 50%     | 25%   | %     |

(To be completed by Contracting Officer)

The target cost of this task order is \$1,560,788.

The target fee of this task order is \$ 22,097 .

The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 1,582,885.

The maximum fee is \$ 32,296 .

The minimum fee is \$0.

**AUTHORIZED SIGNATURE:**

THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"

*Gordon G. Collins*  
SIGNATURE OF CONTRACTING OFFICER

1/23/00  
DATE

Lorrie L. Eakin  
Contracting Officer

TYPED NAME OF CONTRACTING OFFICER

**CONTRACTOR'S ACCEPTANCE**

**AUTHORIZED SIGNATURE**

DATE \_\_\_\_\_

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CONTRACTOR

CONTRACT NO./TASK NO.

QSS Group, Inc.

NAS5-

99124

TASK NO.

177

AMENDMENT

Applicable paragraphs from contract Statement of Work:

**STATEMENT OF WORK:** (Continue on blank paper if additional space is required)

See attached statement of work.

**PERFORMANCE SPECIFICATIONS:**

There are no hardware deliverables.

See attached statement of work for other performance specifications.

**APPLICABLE DOCUMENTS:**

None

**TASK END DATE:** 9/30/00

**MILESTONES/DELIVERABLES AND DATES:**

See attached statement of work.

**PERFORMANCE STANDARDS:**

**Schedule:** On-time delivery/completion of the milestones/deliverables.

**Technical:** ATR's acceptance of the deliverables.

**FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):**

Alan Johns, code 423, Bldg. 32, room E110B

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**REQUEST FOR TASK PLAN / TASK ORDER****Contract NAS5-99124****STATEMENT OF WORK:****TASK #: 177****EOS MISSION SYSTEMS IMPLEMENTATION ENGINEERING ANALYSIS****Task Start Date:** January 1, 2000

The contractor shall provide engineering analysis services for the seven major functions: (1) engineering analysis services for the development, refinement and documentation of mission operations concepts, ground system requirements, pre-launch preparation and processing requirements, and mission planning for the EOS mission operations; (2) engineering analysis services for institutional/EOSDIS system development, integration and implementation; (3) engineering analysis services for development of an effective EOSDIS network and the connection of this network with outside entities; (4) system engineering analysis of EMOS requirements, design, testing, and operations documentation; analysis of test results and discrepancy reports; and usability analysis; (5) security engineering analysis services for ESDIS; (6) engineering analysis services for integrated product team; and (7) engineering services for system integration and test. Specific activities include:

**Specific Tasks:**

- Define the simulated science data needs in terms of data type/level, volume, data dependencies, ancillary data needs, formats, and schedule in support of integration and test and ad hoc TDS User Working Group for all EOSDIS I&T activities.
- Interact with the EGS I&T, SE, instrument teams and Flights Projects in identifying and acquiring test data sets.
- Act as an information liaison to provide insight from the EGS system level integration perspective, including lessons learned between test activities, quality/usage of the provided test data sets and information exchange between test team members.
- Provide software and administrative services, including maintenance, metrics, and generation of Discrepancies Report Tracking Tool (DRTT) reports.
- Participate in Discrepancy Review Boards for several projects (e.g., EMOS, EDOS, etc.).
- Develop and maintain mission requirements, operations concepts, ICDs, IRDs, and DFCDs for future missions.
- Monitor pre-launch testing, data flows and simulations.
- Prepare CCRs to ESDIS documentation and requirements in line with changing mission plans and requirements.
- Generate and maintain EOS mission plans and schedules, including an up-to-date schedule for the ground data system/institutional support entities for each mission. \*
- Maintain and execute the Mission Systems Resource Scheduling database system. \*
- Assist Instrument Operations Teams and Instrument Operations Working Groups. \*

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**STATEMENT OF WORK:**

**TASK #: 177**

- Provide planning and coordination of instrument activities and facilitate recovery plans in the event of an instrument anomaly for the Terra mission. \*
- Prepare and execute instrument activation activities with the Terra instrument operations team. \*
- Review operational products in preparations for the development of operational products, e.g. operations agreement, procedures, displays, etc. for PM and CHEM missions. \*
- Review and analyze EOSDIS related requirements, design, interfaces, test, and operations documentation, procedures, plans, and reports.
- Participate in EOSDIS networks related project reviews, presentations, teleconferences, working groups, and meetings.
- Analyze and provide recommendations on proposed EOSDIS Ground network topology, architecture, and design.
- Analyze EOSDIS networks data traffic, site-specific connectivity issues, EOSDIS external and internal interfaces and interface requirements, ICDs, and end-to-end EOSDIS networks operations and management concepts.
- Provide requirement management and analysis for all EOSDIS Level 3 and ECS Level 4 security requirements.
- Assist in conducting security risk assessments on all EOSDIS systems to determine an acceptable level of risk.
- Develop and maintain an EOSDIS TERRA Security Architecture diagram.
- Update and provide maintenance of the ESDIS Security web site.
- Conduct security site certifications and audits, when necessary, and provide written reports to the ESDIS Project management, and to other appropriate officials.
- Analyze and provide recommendations for reported security incidents and recommend the correction, if necessary.
- Assist the ESDIS Computer Security Officer (CSO) in his responsibilities.

**Deliverables:**

- Test data generation 15 days following request by ATR
- DRTT Reports – weekly (last day of week)
- DRB Agenda and Minutes – weekly (last day of week)
- Instruction for ATC load validation checks for instrument commands – daily (Terra Launch + 90 days)
- Times and type of TDRSS contacts required for instrument operations – daily (Terra launch + 60 days)
- Mission Systems Resource Schedules, updated weekly (last day of week)
- PM-1 and CHEM Mission Operations Readiness Plan – 45 days after ATR request

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- Analysis reports and white papers - 30 days after ATR request
- Ground data system/institutional support schedules – updated monthly ( last day of the month)
- SIT agenda, minutes, and action items -updated monthly (last day of the month)
- Facility meeting agendas, minutes, and action items-updated monthly ( last day of the month)
- Review comments on changes to ESDIS Project's level 2 requirements, IRDs, and ICDs – within 21 days of ATR request
- Updated networks database with ESDIS networks requirements changes – 3/31/2000, 6/30/2000, 9/29/2000
- Updated consolidated networks design and implementation activities schedule- last day of the month
- Updated ESDIS networks topology architecture diagram – 3/31/2000, 6/30/2000, 9/29/2000
- Updated Networks data traffic requirements reports on Web server – 3/31/2000, 6/30/2000, 9/29/2000
- Updated ESDIS Security Policy and Guidelines document – 2/28/2000
- ESDIS Security database for tracking all systems, IP addresses, users and system administrators – 5/29/2000
- Updated security architecture diagrams – first update 3/31/2000
- Security Compliance Review Reports – 21 days after site security audit

**Performance Specifications:**

1. Simulated Science Data Need Definition: Acceptable performance is to define the simulated science data needs in terms of data type/level, volume, data dependencies, ancillary data needs, formats, and schedule in support of integration and test and ad hoc TDS User Working Group for all EOSDIS I&T activities accurately and with minimal errors.
2. Integrated Product Team Services: Acceptable performance is that the verification of the ECS Ingest and Archive test activities is performed correctly with minimal errors.
3. Test Engineering: Acceptable performance is that the ESDIS Test Manager is satisfied that he/she is being provided appropriate insight from the EGS system level integration perspective, including lessons learned between test activities, quality/usage of the provided test data sets and information exchange between test team members.
4. DRTT Administrative Services: Acceptable performance is that the administrative services, including maintenance, enhancements, metrics and generation of DRTT reports, is correct and contains minimal errors.

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5. Discrepancy Review Board (DRB) Services: Acceptable performance is that the DRB chairperson(s) is/are satisfied with the agendas and meeting minutes provided at the DRB meetings.
6. Development and Maintenance of Mission Documentation: Acceptable performance is that upon finalization the materials are currently, accurately reflect mission requirements, plans, schedules, and operations.
7. Pre-Launch Testing, Data Flows and Simulations Services: Acceptable performance is that significant lapses in planning and requirements testing for pre-launch testing, data flows and simulations have been identified and reported to the Mission Manager.
8. Analysis of Schedule Impacts: Acceptable performance is that the Mission Manager is satisfied that he/she is being kept informed of the schedule impacts between the ground data system and institutional support entities.
9. Instrument Operations Team and Instrument Operations Working Groups Services: Acceptable performance is that the Mission Manager believes he/she is being kept informed of the work being performed and of issues requiring project attention.
10. Analysis and Planning of Operations: Acceptable performance is that execution of plans and procedures of instrument activities occur without anomalies attributable to flaws in the plans or procedures.
11. Review Operational Products: Acceptable performance is that the Mission Manager is satisfied that he/she is being kept informed and that issues are captured with minimal errors in terms of EOSDIS related requirements, design, interfaces, test and operations documentation, procedures, plans, and reports.
12. EOSDIS Networks Analysis: Acceptable performance is the EOSDIS networks data traffic requirements, site-specific connectivity issues, EOSDIS external and internal interface requirements, and ICDs, are accurate and current.
13. Security Requirements Management: Acceptable performance is that the requirements for all EOSDIS Level 3 and ECS Level 4 security requirements are accurate and current.
14. Security Risk Assessment: Acceptable performance is that the EOSDIS Security Officer is satisfied that he/she is being kept informed of all potential security risks and that risks are captured with minimal errors.

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15. Security Site Certifications and Audits Services: Acceptable performance is that security site certifications and audits are conducted when requested by the ATR and written reports, which are accurate, and are provided to the ESDIS Project management and to other appropriate officials.